DOCUMENT RESUME

ED 361 022 JC 930 400

AUTHOR	Friedlander, Jack
TITLE	Post-College Employment Rates and Earnings of Students Who Participated in SBCC Occupational Education Programs.
INSTITUTION	Santa Barbara City Coll., Calif.
PUB DATE	[93]
NOTE	12p.
PUB TYPE	Reports - Research/Technical (143)
EDRS PRICE	MF01/PC01 Plus Postage.
DESCRIPTORS	Associate Degrees; College Graduates; Community Colleges; Comparative Analysis; *Economically Disadvantaged; *Education Work Relationship; *Salaries; *Student Employment; Two Year Colleges; Two Year College Students; Vocational Education; *Vocational Followup; Wages
IDENTIFIERS	Santa Barbara City College CA

ABSTRACT

A study was conducted to determine the earnings made by students while enrolled at Santa Barbara City College (SBCC) in California, and during their first and third years after leaving SBCC. The study, which compared employment status and earnings by occupational field, and outcomes for associate-degree completers and those earning 12 or more credits at SBCC, matched Social Security numbers of students who attended the college from 1986-87 to 1989-90 with income data collected from employers by the California Employment Development Department. Annual earnings data are somewhat understated in that total wages are reported and averaged regardless of how many hours per week the employee works. Study findings included the following: (1) the percentage of graduates who found year-round employment in California during their first year after leaving SBCC ranged from 100% for Drafting/Computer Aided Design graduates to 55% for Marine Diving Technology graduates; (2) the third year of post-college earnings for associate degree recipients was highest among nursing graduates ($33,370); (3) the average annual wage for all SBCC occupational students completing 12 or more units of coursework was $22,436 in their first year, and $26,427 in their third year after leaving SBCC; (4) the percentage of former students finding year-round employment increased from 68% to 73% from the first to third year after leaving SBCC; (5) among degree recipients, annual wages increased by 41% between the first and third year of post-SBCC employment, as compared with a 28% increase for those leaving SBCC after earning 12 or more units; and (6) among students who completed an associate's degree, economically disadvantaged students earned almost as much money as non-economically disadvantaged students. (PAA)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 361 022

POST-COLLEGE EMPLOYMENT RATES AND EARNINGS OF STUDENTS WHO PARTICIPATED IN SBCC OCCUPATIONAL EDUCATION PROGRAMS

By Jack Friedlander
Dean of Academic Affairs
Santa Barbara City College
721 Cliff Drive
Santa Barbara, CA 93109-2394

IC 930 400

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

P. R. MacDougall

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

BEST COPY AVAILABLE

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☑ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

POST-COLLEGE EMPLOYMENT RATES AND EARNINGS OF STUDENTS WHO PARTICIPATED IN SBCC OCCUPATIONAL EDUCATION PROGRAMS

By Jack Friedlander
Dean of Academic Affairs

How much money did students who earned an associate degree make after completing the degree in a particular occupational education program offered by SBCC? What percentage of the students who completed an associate degree in an occupational program area found year-round employment in California one to three years after leaving the college? What were the average annual wages, by major field, for students who completed 12 or more units of coursework in occupational education at SBCC?

Answers to these questions were obtained from a study completed this past year that tracked earnings of students while in college and in their first three years in the workforce. The study involved matching Social Security numbers of students who attended SBCC from 1986-87 to 1989-90 with income data collected from employers by California's Employment Development Department. A complete account of the methods and findings of this study is available upon request in a report entitled, "Using Wage Record Data to Track the Post-College Employment and Earnings of Community College Students" (EDD number to be assigned).

Post College Earnings and Year-Round Employment Rates, Major Field, for Students Who Received the Associate Degree

The data in **Table 1** show the first and third years of post-college earnings for students who received an associate degree in each of 11 major fields. The percentage figure below each of the earnings numbers represents the percentage of associate degree recipients who were employed in California four consecutive quarters in a given year.

The annual earnings data are somewhat understated in that they are based on the wages of former students who were employed four consecutive quarters, regardless of the number of hours worked. For example, the wages of former students who worked 19 hours a week on a year-round basis as well as those who worked 40 hours a week were used in computing the annual average wages for the major fields considered. This is because the Employment Development Department doesn't collect data from employers on the number of hours each of their employees worked.

TABLE 1

POST-COLLEGE WAGES AND YEAR-ROUND EMPLOYMENT RATES, BY MAJOR FIELD FOR STUDENTS WHO EARNED AN ASSOCIATE DEGREE*
(In 1992 Dollars)

		Worked Four Quarters**	
Major Field	N	First Year Out	Third Year Out
Admin. of Justice	13	$17,941 (86%)	$26,505 (86%)
Business	114	$20,674 (65%)	$25,823 (73%)
Comp. Sci./CIS	65	$22,591 (72%)	$28,271 (77%)
Drafting/CAD	54	$24,796 (100%)	$28,360 (67%)
Electronics	34	$29,131 (69%)	$31,990 (75%)
Graphic Comm.	20	$14,145 (60%)	$24,969 (67%)
Marine Technology	14	$22,618 (55%)	$24,595 (70%)
Nursing	94	$30,564 (87%)	$33,760 (86%)
OIS	17	$20,700 (88%)	$24,311 (82%)
Radiography	14	$28,313 (84%)	$31,065 (78%)
Restaurant 2-Year Certificate	44	$18,356 (68%)	$22,479 (71%)

*NOTE. The data are based on students who received associate degrees from 1985-86 through 1989-90. Earnings were combined and adjusted to 1992 dollars.

**NOTE. The percentages reported under the wage data reflect the percentage of the former students who worked four quarters in that year.

Among the findings in **Table 1** for students who received associate degrees from Santa Barbara City College from 1986-87 to 1989-90 were that:

1. The percentage of graduates who found year-round employment in California during their first year after leaving the college ranged from a high of 100% for those in the Drafting/CAD Program to 55% in the Marine Diving Technology Program.*

2. The first-year salaries for associate degree recipients who worked all four quarters ranged from a high of $30,564 for Nursing Program graduates to $14,145 for Graphic Communications Program graduates. (The Graphic Communications faculty have made changes in their curriculum to remedy this situation.)

3. The third year of post-college earnings of associate degree recipients who worked four quarters was highest among graduates in Nursing ($33,370), Electronic/Computer Technology ($31,970) and Radiography (X-Ray) ($31,065).

Post-College Employment Rates and Earnings, by Major Field, for Students Who Completed 12 or More Units of Coursework in Occupational Education

Table 2 shows the post-college wages and year-round employment rates for students who completed 12 or more units in their major, regardless of their educational attainment level or age at the time they left SBCC. The percentage figure below each of the earnings numbers represents the percentage of associate degree recipients who were employed in California four consecutive quarters in a given year.

The average annual wages reported in **Table 2** are somewhat inflated in that they include older students who may have been in the workforce a number of years prior to leaving the college. For example, these earnings data include both the computer programmer making $36,000 a year who completed 12 or more units of Computer Science and Computer Information Systems courses to keep up in his or her field, as well as the student who completed coursework in these same disciplines to prepare for an entry-level computer programming position.

---

*A high percentage of the graduates of the Marine Diving Technology Program are hired by U.S. companies to perform assignments in other states and in other countries. Wage data are not collected by the California Employment Development Department for people who are employed outside of California.

TABLE 2

EARNINGS BY MAJOR FIELD FOR STUDENTS WHO COMPLETED 12 OR MORE UNITS OF COURSEWORK IN OCCUPATIONAL EDUCATION AT SBCC

(In 1992 Dollars)

		Worked Four Quarters	
Major Field	N	First Year Out	Third Year Out
Admin. Justice	40	$20,846 (87%)	$28,955 (78%)
Automotive	32	$21,721 (67%)	$24,673 (66%)
Business	237	$21,305 (64%)	$24,773 (71%)
Comp. Sci./CIS	33	$26,412 (70%)	$31,044 (81%)
Cosmetology	61	$11,923 (84%)	$18,220 (69%)
Drafting/CAD	39	$23,211 (64%)	$28,775 (68%)
Electronics	72	$31,611 (80%)	$34,882 (85%)
Early Childhood	33	$15,365 (62%)	$17,360 (68%)
Envir. Horticulture	18	$21,316 (61%)	$21,331 (74%)
Graphic Comm.	38	$14,644 (53%)	$20,118 (61%)
Marine Technology	32	$22,832 (54%)	$25,872 (63%)
Nursing	111	$28,830 (86%)	$32,801 (87%)
OIS	44	$19,551 (75%)	$22,667 (71%)
Radiography (X-Ray)	44	$29,082 (88%)	$31,462 (82%)
Restaurant Mgt.	79	$17,788 (65%)	$21,065 (69%)
All Occ. Ed. Majors	955	$22,436 (68%)	$26,427 (73%)

Among the findings reported in **Table 2** for students who completed 12 or more units of coursework in occupational education at SBCC were that:

1. The average annual wage for all SBCC occupational students who worked year-round was $22,436 in their first year after leaving the college and $26,427 in their third year after leaving the college.

2. The percentage of occupational education students who found year-round employment in California increased from 68% in their first year after leaving SBCC to 73% in their third year after last attending the college.

3. Program leavers in 10 of the 15 major fields earned $20,000 or more in their first year after leaving SBCC. Former students in 13 of the 15 major field areas earned over $20,000 a year in their third year after leaving the college.

Comparison of Post-College Wages Between Grossmont College and Santa Barbara City College

Grossmont College and Santa Barbara City College each examined the post-college wages of students who completed 12 or more units in a major field. Five of the 11 major fields studied by the research team at Grossmont College were either not offered at Santa Barbara City College or were analyzed in a way that did not allow for direct comparisons.

There were, however, six major fields that were studied in the same way at each institution. The data presented in **Table 3** show the post-college wages of students from each of the two colleges. The data for all program leavers with 12 or more units in their major, regardless of their educational attainment level or age at the time they left college. The findings in **Table 3** reveal that the post-college wages for program leavers in five of the six major field areas examined were very similar across the two institutions. This finding lends support to the credibility of the wage data collected by the Employment Development Department.

TABLE 3

COMPARISON OF POST-COLLEGE WAGES IN SIX MAJOR FIELDS FOR PROGRAM LEAVERS AT GROSSMONT COLLEGE AND SBCC
(In 1992 Dollars for Students Who Worked Four Quarters)

Major Field	N	Grossmont College	N	Santa Barbara City College
Admin. of Justice	40		40	
1st Year After College		$21,600		$20,846
3rd Year After College		$29,000		$28,955
Business	134		114	
1st Year After College		$15,862		$20,674
3rd Year After College		$21,852		$25,823
Comp. Sci./CIS	58		65	
1st Year After College		$25,000		$22,591
3rd Year After College		$26,900		$28,271
Early Childhood Education	33		33	
1st Year After College		$14,000		$15,365
3rd Year After College		$17,600		$17,360
Nursing	129		111	
1st Year After College		$27,800		$28,830
3rd Year After College		$33,500		$32,801
Office Information Systems	118		146	
1st Year After College		$15,400		$19,551
3rd Year After College		$19,900		$22,667

Implications for College Practice

The data reported in this paper provides departments with information on the post-college success of their former students in the labor force. Starting in Fall 1994, the Chancellor's Office will provide each California community college with data on year-round employment rates and wages by major field. This will provide us with information against which to assess our students' success in the workforce after they leave SBCC.

A:DIVWAGES:13

College Insights
Santa Barbara City College
5th in a Series

The Economic Value of an Associate Degree from SBCC

By Dr. Jack Friedlander

WHAT ARE THE POST-COLLEGE WAGES of Santa Barbara City College students who earn an associate degree in an occupational education program? Do the post-college earnings of students with associate degrees increase over time at a faster rate than those of students who left college before receiving a degree? Does earning the associate degree close the income gap between those who were economically disadvantaged at the time they entered the college versus those who were not?

Answers to these questions were obtained from a study completed this past year that tracked earnings of students while in college and in their first three years in the workforce. The study involved matching Social Security numbers of students who attended SBCC from 1986-87 to 1989-90 with income data collected from employers by California's Employment Development Department. A complete account of the methods and findings of this study is available upon request in a report entitled, "Using Wage Record Data to Track the Post-College Employment and Earnings of Community College Students."

STUDENTS WHO EARNED AN ASSOCIATE DEGREE AT SBCC HAD HIGHER POST-COLLEGE INCOMES THAN STUDENTS WHO LEFT COLLEGE BEFORE RECEIVING A DEGREE.

The data presented in ***Table 1*** show the relationship between education attainment level at SBCC and post-college earnings for students who participated in the college's occupational education programs.

Table 1

WAGES BY EDUCATIONAL ATTAINMENT FOR 18-24 YEAR OLD STUDENTS

(Reported in 1992 Dollars)

Annual Wages

Educational Attainment Level	*N*	*1st Year After Leaving SBCC*	*3rd Year After Leaving SBCC*	*% Change in Annual Wages from 1st to 3rd Year After Leaving SBCC*
Degree	*546*	*$18,443*	*$26,078*	*41%*
12 or More Units	*1,238*	*$16,080*	*$20,519*	*28%*

(Continued on reverse side)

College Insights *(Page 2)*

The data presented in ***Table 1*** reveal that:

1. In the third year after leaving SBCC, the wages of students who earned an associate degree were substantially higher than those who completed 12 or more units of occupational education courses but did not receive a degree ($26,078 versus $20,519); and

2. The first- to third-year gain in post-college earnings for students who received an associate degree was much greater than the gains in income by students who left college without completing a degree (41% versus 28%).

These findings provide strong support for the economic value of the associate degree. They are consistent with the findings reported by the U. S. Bureau of the Census, which show that students who complete the associate degree earn more money than high school graduates who opt not to attend college or who withdraw from college before acquiring the associate degree *(U. S. Bureau of the Census, 1992)*.

STUDENTS WITH THE ASSOCIATE DEGREE MADE SUBSTANTIAL GAINS IN COLLEGE TO POST-COLLEGE EARNINGS.

One approach for measuring the economic value of completing community college occupational education courses and degrees is to compare student earnings while attending college with their post-college earnings. As illustrated in ***Table 2,*** students who completed an associate degree more than tripled their earnings from the time they were attending classes to three years after they left college ($8,545 vs. $26,078). Those who left college without a degree saw their earnings more than double during this same period ($8,479 vs. $20,519).

Table 2

GAINS IN COLLEGE TO POST-COLLEGE EARNINGS (VALUE ADDED) BY EDUCATIONAL ATTAINMENT LEVEL

(Reported in 1992 Dollars for 18-24 Year Old Students)

Annual Earnings

Educational Attainment Level	*N*	*Year Prior To Leaving SBCC*	*3rd Year After Leaving SBCC*	*% Change in Annual Earnings Prior to Leaving SBCC to 3rd Year After Leaving SBCC*
Degree	*546*	*$8,545*	*$26,078*	*205%*
12 or More Units	*1,238*	*$8,479*	*$20,519*	*142%*

(Continued on next page)

College Insights *(Page 3)*

EARNING AN ASSOCIATE DEGREE CLOSES THE GAP IN POST-COLLEGE INCOME BETWEEN STUDENTS WHO WERE ECONOMICALLY DISADVANTAGED AT THE TIME THEY ENTERED THE COLLEGE AND THOSE WHO WERE NOT.

The information presented in ***Table 3*** shows the relationship between educational attainment level and post-college earnings for students who received need-based financial aid while attending SBCC (economically disadvantaged) versus those who did not (non-economically disadvantaged).

Table 3

POST-COLLEGE WAGES BY EDUCATIONAL ATTAINMENT LEVEL FOR STUDENTS WHO RECEIVED FINANCIAL AID WHILE ATTENDING SBCC (ECONOMICALLY DISADVANTAGED) VERSUS THOSE WHO DID NOT (NON-ECONOMICALLY DISADVANTAGED)*

(In 1992 Dollars for Students Who Worked Four Quarters)

Annual Earnings

Educational Attainment Level	*N*	*Year Prior To Leaving SBCC*	*1st Year After Leaving SBCC*	*3rd Year After Leaving SBCC*
Degree Completers				
Non-Economically Disadvantaged	*382*	*$12,023*	*$25,026*	*$29,182*
Economically Disadvantaged	*81*	*$7,055*	*$21,802*	*$27,645*
12 or More Units/No Degree				
Non-Economically Disadvantaged	*838*	*$16,634*	*$21,942*	*$25,599*
Economically Disadvantaged	*137*	*$8,357*	*$17,989*	*$22,554*

***NOTE:** Figures in **Table 3** are based on all college degree completers and leavers with 12 or more units, regardless of age. The wage data presented in **Tables 1** and **2** are based on students who were 18-24 years of age at the time they left SBCC.*

(Continued on reverse side)

THE INFORMATION PRESENTED IN TABLE 3 REVEALS THAT BY THE THIRD YEAR AFTER LEAVING SBCC:

1. Economically disadvantaged students who completed an associate degree earned almost as much money as non-economically disadvantaged students who completed the associate degree ($29,182 vs. $27,645);

2. Economically disadvantaged students who completed an associate degree earned more money than non-economically disadvantaged students who completed 12 or more units of occupational education courses, but did not finish an associate degree ($27,645 vs. $25,592);

3. Economically disadvantaged students who completed an associate degree earned a substantially greater amount of money than economically disadvantaged students who left college before receiving an associate degree ($27,645 vs. $22,554); and, although not shown in *Table 3*,

4. Economically disadvantaged students who completed an associate degree were much more likely to be employed year-round than economically disadvantaged students who left college before receiving a degree (73% vs. 57%).

These findings are most encouraging in that they demonstrate the value of the associate degree in narrowing the disparity in income between students with economically disadvantaged backgrounds and those who are not economically disadvantaged. On the other hand, the data provided in *Table 3* suggest that many of the program leavers who were economically disadvantaged while attending college are likely to remain so in their post-college years.

IMPLICATIONS FOR COLLEGE PRACTICE. The findings of this study indicate that the best advice we can give students enrolled in occupational education programs is to complete the associate degree. The worst advice, with respect to future earnings potential, is to encourage students in occupational education programs to leave college before completing an associate degree. College faculty and staff need to *intensify their efforts* to increase the number of students in occupational education programs who complete the associate degree.

A copy of "Using Wage Record Data to Track the Post-College Employment and Earnings of Community College Students" may be obtained from Jack Friedlander, Academic Affairs Office.

This 'Insights' Series of Reports to SBCC's College Community
Is Produced by Members of the Institutional Research Committee.
(The computer programming support provided by John Haskins
and Bill Hamre contributed to the successful completion of this study.)

BEST COPY AVAILABLE